

## IMPACT OF ECONOMIC FACTORS ON STARTUP GROWTH PERFORMANCE IN SOUTH ZONE WITH REFERENCE TO INDIA

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### *Abstract*

*The southern region of India, which includes states like Tamil Nadu, Kerala, Andhra Pradesh, Telangana, and Karnataka, has become a thriving centre for startups, which has greatly boosted India's creativity and economy. This article explores the factors that have contributed to this area's success in the startup scene, such as its strong information technology infrastructure, talented workforce, and forward-thinking government regulations. The diversified and vibrant entrepreneurial climate is being fostered by key cities like Bangalore, Hyderabad, and Chennai, which are leading the charge in industries including as healthcare, agritech, biotechnology, and information technology. Funding, incubation, and mentoring programmes are given major assistance by government efforts like as Start-Up Karnataka, T-Hub in Telangana, and Kerala Startup Mission. Regulatory roadblocks, financing deficits, and talent retention problems are still there, even if the ecosystem is thriving. By outlining the potential and challenges that characterize this dynamic industry, this study gives a thorough review of the southern Indian startup scene.*

**Keywords:** *Start-up Ecosystem, Southern India, Entrepreneurship Innovation, IT Infrastructure*

### **Introduction**

Startup is need of hour to any developing nation, it generates more economy and employment opportunities for the nations in this respect, the macro-economic factors Gross domestic product and inflation play a vital role. Hence, innovators are mainly considering the country GDP, inflation, and other macro-economic factors supporting for their start up. In general, a start-up is an innovative business venture that is usually founded by one or more entrepreneurs with the aim of creating a unique product or service. These businesses are characterized by their limited funding and resources, high-

risk business models, and a focus on growth and scalability. Start-ups are typically associated with disruptive technologies and business practices, and they operate in fast-moving, dynamic markets. The defining feature of a start-up is its emphasis on innovation. Start-ups are founded with the goal of creating something new and different that has the potential to disrupt existing markets or create entirely new ones. Unlike traditional businesses that focus on incremental improvements to existing products and services, start-ups are designed to identify unmet needs and pain points and

develop solutions that effectively address them.

For a start-up to succeed, it needs to create a product or service that meets a genuine need in the market. This requires a deep understanding of the target audience and the ability to identify unmet needs. Successful start-ups are able to identify a need that is not being adequately addressed by existing solutions and create a product or service that effectively addresses that need. Another key characteristic of start-ups is their focus on growth and scalability. Start-ups are usually structured in a way that allows them to scale rapidly, often through the use of technology and data analytics. The ability to automate and streamline business processes, as well as gain insights into customer behavior, is critical to a start-up's success.

#### *Startup in South Zone*

The southern zone of India, comprising Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, and Kerala, has gained prominence as a dynamic and thriving hub for start-ups. This region's evolution into a powerhouse of innovation and entrepreneurship is attributed to several key factors, including a robust IT infrastructure, a highly skilled and educated workforce, proactive government policies, and a cultural shift towards embracing entrepreneurial ventures. The synergy of these elements has fostered an environment conducive to the growth and success of start-ups, positioning the southern states as significant contributors to India's burgeoning start-up ecosystem.

*Karnataka*, with its capital Bangalore, often referred to as the Silicon Valley of India, leads the pack with a high concentration of technology start-ups, global tech giants, and a well-established ecosystem of venture capital firms, incubators, and accelerators. The state's Start-Up Karnataka policy and numerous government-backed initiatives have played a crucial role in nurturing innovation and supporting early-stage ventures. Bangalore's vibrant tech scene and the presence of renowned institutions like the Indian Institute of Science (IISc) and the

Indian Institutes of Technology (IIT) further enhance its attractiveness to entrepreneurs and investors alike.

*Tamil Nadu* has emerged as a significant player in the start-up landscape, particularly in sectors such as automobile, healthcare, and Software as a Service (SaaS). Chennai, the state's capital, is a burgeoning hub for start-ups focused on these industries. The Tamil Nadu Startup and Innovation Policy 2018-2023 aims to create a conducive ecosystem for start-ups by providing financial support, infrastructure, and mentorship. The state's strategic location, coupled with its strong industrial base and access to a talented pool of professionals, makes it an attractive destination for start-up ventures.

*Andhra Pradesh* is making strides in fostering innovation, especially in the fields of agritech, information technology, and logistics. Cities like Amaravati and Visakhapatnam are at the forefront of this transformation, supported by the state's Innovation and Start-Up Policy 2014-2020. The policy provides a comprehensive framework for nurturing start-ups through incubation centers, funding schemes, and mentorship programs. Andhra Pradesh's focus on leveraging technology to enhance agricultural productivity and streamline logistics operations positions it uniquely in the national start-up ecosystem.

*Telangana*, with Hyderabad as its capital, is renowned for its thriving tech start-up scene and growing biotech industry. The state government has been instrumental in establishing a robust support system for start-ups through initiatives like T-Hub, one of India's largest start-up incubators, and WE Hub, an exclusive platform for women entrepreneurs. Telangana's strategic initiatives and investor-friendly policies have attracted significant investments, fostering a culture of innovation and entrepreneurship.

*Kerala* has carved a niche for itself in the start-up domain, with a particular focus on sectors such as tourism, healthcare, and

education technology. The Kerala Startup Mission (KSUM) plays a pivotal role in supporting start-ups by providing seed funding, incubation facilities, and access to a global network of mentors and investors. Cities like Kochi and Trivandrum are emerging as vibrant start-up hubs, driven by the state's emphasis on sustainable development and social impact ventures. Despite the remarkable growth and success of start-ups in the southern zone of India, several challenges persist. Regulatory hurdles, funding gaps, and talent retention issues are some of the critical obstacles that need to be addressed to sustain and accelerate the momentum of the start-up ecosystem. Nevertheless, the southern states' commitment to fostering innovation, combined with the inherent advantages of the region, makes it a promising landscape for start-ups to thrive.

#### *Problem Statement*

Startups in India's southern zone have quickly become an important part of the country's innovation and economy. Despite the start-up ecosystem's impressive expansion, thorough research is still needed to comprehend its unique characteristics. The purpose of this research is to examine the factors such as GDP and inflation role to enhance the startup numbers and motivate the innovators to establish the start up in south zone. In the south zone each states Gross Domestic Product keeps on increasing due to selected state governments for the study is increased infrastructures facilities, investment and technology development, the inflation rate is always fluctuation any have it is fully controlled by the government though these two-factor performance is often fluctuating and it cause for the development of start-up in the selected states. The main intentions to analyze the study, all the selected states the startup growth performance will steadily increase whereas in 2022 the total number of start up in each state is drastically decrease. Hence the researcher has attempted to analyze GDP and inflation economic factors to establish a start up in the South zone.

#### *Objectives of the Study*

- To analyze the influence of Gross Domestic product (GDP) in Startup Growth in the South zone India
- To investigate how inflation rates impact the growth and dynamics of startups in the South zone in India

#### **Review of Literature**

According to Giardino, et al. (2016), software startups are fledgling companies with little market experience that create novel products. Despite startups' rising importance to the economy, software engineering research, especially for early-stage enterprises, is scarce. Due to limited resources and the risk of failure, startups must apply engineering methods on par with or better than larger companies. This study illuminates how new firms construct software. A grounded theory approach was utilised to assess existing practice. The Greenfield Startup Model (GSM) explains why entrepreneurs value speedy product delivery. Startups may utilise early consumer feedback to establish product-market fit and make course modifications.

Generally speaking, a business that has been around for less than five years is considered a startup. The modern definition of a startup, however, includes a company that primarily focuses on operating and using technical innovation to address societal problems. In recent years, Indonesia has seen a proliferation of innovative startups in sectors as diverse as e-commerce, logistics, transportation, healthcare, and academia. But, all areas of the economy, including startups, have felt the effects of the COVID-19 epidemic since it struck Indonesia. As a result of COVID-19, the majority, or 42.5%, of digital companies are in a terrible condition. Therefore, the purpose of this research is to analyse how business owners responded to the COVID-19 epidemic. Humans' perceptions of the COVID-19 phenomena are detailed in this research using a phenomenological qualitative approach. The findings demonstrate that company owners have the power to both give

and raise product or service brand recognition. During the COVID-19 epidemic, new enterprises may express their values to their employees and the society at large by making the most of social media management (Tiffany et al., 2020).

Nurcahyo et al. (2018)'s study focused on startup organizations exhibit unique traits indicative of their formative stages. Since the goal is to comprehend the startup's traits, the study approach is qualitative. Since the fashion startup industry in Indonesia is one of the country's most promising new ventures, it serves as the subject of this study. Startups in the Indonesian fashion industry must carefully consider their strategies. An examination of the tactics used by Indonesian fashion entrepreneurs is the primary goal of this article. When making decisions, the majority of companies rely on gut feelings. Since the fashion industry is still in its early stages of development, most entrepreneurs in this sector employ an intense approach. Startups in Indonesia's fashion industry often adopt two strategies: (1) to diversify their product offerings and (2) to aggressively penetrate existing markets.

The research done by Paik et al. (2013) delves at the ways in which economic downturns and variations in the quantity of cash pouring into venture funds impact the funding of innovative startup enterprises. Our main point is that various types of economic downturns have diverse impacts on investment patterns. As market capital flows expand, venture capital firms priorities investing in early-stage startups over later-stage ones. Additionally, we discover that when the real sector is experiencing an economic downturn, venture capital firms spend less in early-stage companies and more in later-stage companies. The reverse is true when the financial sector is experiencing an economic downturn. This research adds to the existing body of knowledge on entrepreneurship by providing empirical evidence of the impact of macroeconomic variables on venture capital investment

choices. Venture capital investment is a common way for entrepreneurial enterprises to break into new markets, and this paper lays out the consequences of this strategy.

The design of startup accelerators programs has become crucial in entrepreneurial ecosystems, and although they share common features such as fixed-term, cohort-based programs, they exhibit significant variations. This study explores the relationship between these program variations and theories of firm-level entrepreneurial performance. By analyzing the design and performance of startups attending accelerator programs, the study identifies the building blocks for future research in the field. These findings not only advance our understanding of accelerators but also contribute to our understanding of what new ventures need to succeed (Cohen et al., 2019).

The study of Maran et al. (2024) explored the new startups enterprises which influence new technology and creativity ideas for developing new product or services and it is finally formed in the name of startup. Besides, the study has analyzed number of startups in India and China includes unicorn startup in both countries, these schemes and policies supporting for the new enterprises as well as facilitates to establish the enterprises in the competitive market. This study has mostly concentrated on exploratory research and has made use of secondary data in order to determine the number of unicorn startups. In India the government initiating several schemes and policies for encouraging and promoting new startup and innovators for sustaining the country economy in global market, like China government initiated various promotional schemes to increase more number of startup in their country. Based on the analysis India startups are steeply increased and it's a proud moment which stood one of the third largest countries in global startup index.

## Methodology

The research methodology employed for studying the south zone states (including Karnataka, Tamil Nadu, Kerala, Telangana, and Andhra Pradesh) followed a structured approach designed to collect, analyze, and interpret data systematically. Utilizing desk research techniques, the study relied on secondary data sourced from government publications, industry reports, and startup promotion agencies. The research spanned a comprehensive seven-year period from 2016 to 2023, during which inflation rates, startup registrations, and relevant economic indicators were tracked and analyzed. Key variables such as inflation rates measured by the consumer price index, the number of startups, sectoral distribution of startups, and economic performance indicators like GDP growth and unemployment rates were selected for thorough examination. Regression analysis was applied to forecast future trends and growth patterns of startups across the south zone states from 2023 to 2027. This statistical method enabled the researcher to model relationships between inflation rates and startup activities, taking

into account regional economic variations and sector-specific dynamics. Qualitative insights were integrated through case studies or interviews with stakeholders within the startup ecosystem, offering contextual understanding and validating quantitative findings. Comparative analysis across different states within the south zone provided insights into regional disparities in startup responses to inflation and economic policies, enriching the study's findings.

## Data Analysis and Interpretation

Data analysis is one of the major areas in the research to analyze the secondary data which help us to conclude the research according to the objectives of the study. In this analysis part the researcher has been used Pearson correlation statistical tool used to find out the significance association between the selected variables like GDP and inflation influence on number of startup growth in south zone the interpretation of the data emphasis the real picture of research and possible to find out the comparative end result performance of the study.

Table 1: Comparison between GDP (\$) and number of south zone Start-ups

Year	2016	2017	2018	2019	2020	2021	2022	2023
South zone Start-ups	159	1677	2635	3719	4244	5469	3288	5682
GDP (\$) billion	2294.8	2651.47	2702.93	2835.61	2671.6	3150.31	3389.69	3732.22

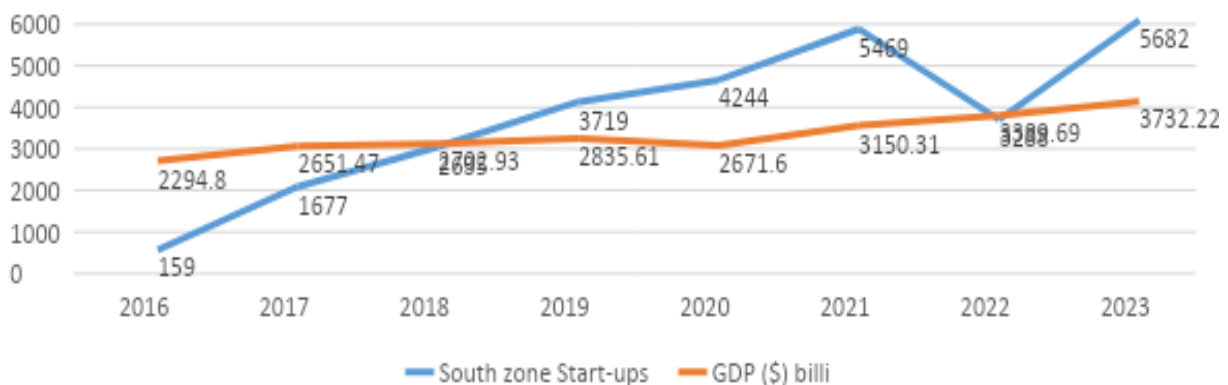


Figure 1: Comparison between GDP (\$) and number of startups in South Zone

Table 2: The association between Gross Domestic Product (GDP) and number of Start-ups in South zone

	<i>South zone Start-ups</i>
South zone Start-ups	1
GDP (\$) billion	0.774293

*Interpretation*

The above table shows the association between GDP and number of start-ups in the selected states, the correlation analysis was done by the researchers to find out the correlation between two factors, since the calculated value of correlation was 0.77, which indicates that the GDP is found to vary positively with the number of start-ups in the south zone, except for the deviation from the trend during the year 2022. The

increasing trend was again observed after the year 2022. The reason for low number of start-ups in 2022 is due to fluctuating GDP in the entire India as well as global countries. Based on the fluctuations, the foreign and angel investments were reduced in the year 2022. Whereas in 2023, the positive GDP and start-up performance were positively increased. Hence, the GDP growth strongly influenced the start-up growth in South zone. comparatively poor macro-economic climate due to international political tensions. But, in the south zone, the association of GDP with start-ups is less compared to the north zone. The possible reason for this could be the industrial hubs in cities like Delhi, Gurgaon, Chandigarh, Lucknow and Allahabad in the north zone. The increasing trend indicates that the start-ups in the south zone contribute positively to the GDP.

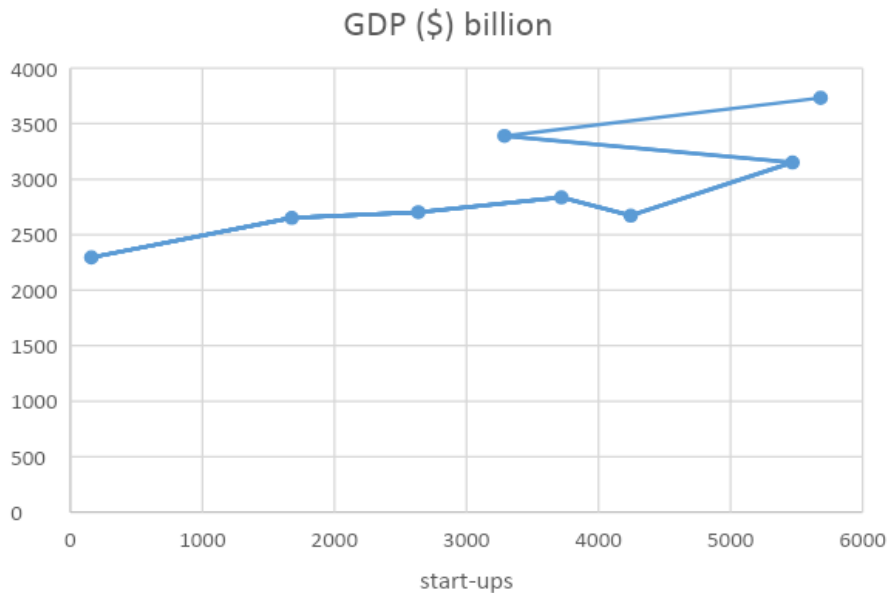


Figure 2: Graph represents GDP and Startup

Table 3: Comparison between inflation and number of south zone Start-ups

Year	2016	2017	2018	2019	2020	2021	2022	2023
South zone Start-ups ('000)	0.159	1.677	2.635	3.719	4.244	5.469	3.288	5.682
Inflation	4.5	3.6	3.43	4.76	6.18	5.51	6.66	5.4

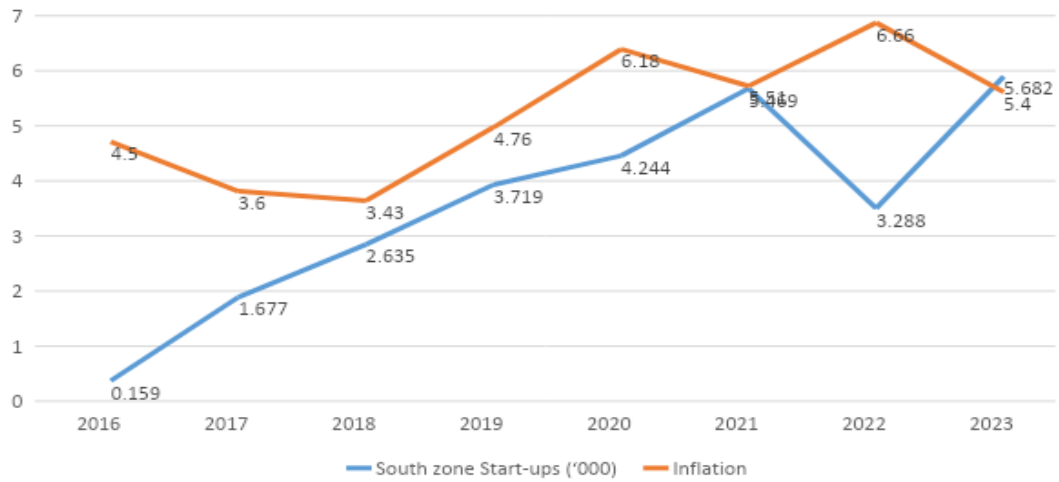


Figure 3: Comparison between Inflation and number of startups in South Zone

Table 4: The association between Inflation and number of startups in south zone

	South zone Start-ups ('000)	Inflation
South zone Start-ups ('000)	1	
Inflation	0.527303	1

*Interpretation*

The above table exhibits the association between inflation and number of start-ups in the South zone. The correlation analysis made with inflation and south zone start-ups is moderately positive i.e. 0.527 (approx. 0.5). The inflation results in a low real income, even though the nominal income is the same. This results in a lack of amounts for funding start-ups to some extent. As far

as the South zone is concerned, this effect is indicated by a moderately positive correlation of 0.5. Though high inflation results generally in a lack of funding, a 2% value of inflation is considered to have a positive effect on the economy. It can be seen that in the given period considered here, the inflation is slightly high in some years, even though the number of start-ups increased during these years, due to other factors contributing to positive effect on the national economy like improved technologies and growth. The inflation has touched the highest value in 2022 in the given period, that has led to the drastic reduction in the number of start-ups in the South zone in the year and then the number of start-ups in the South zone has increased again in the next year, due to reduced inflation compared to 2022.

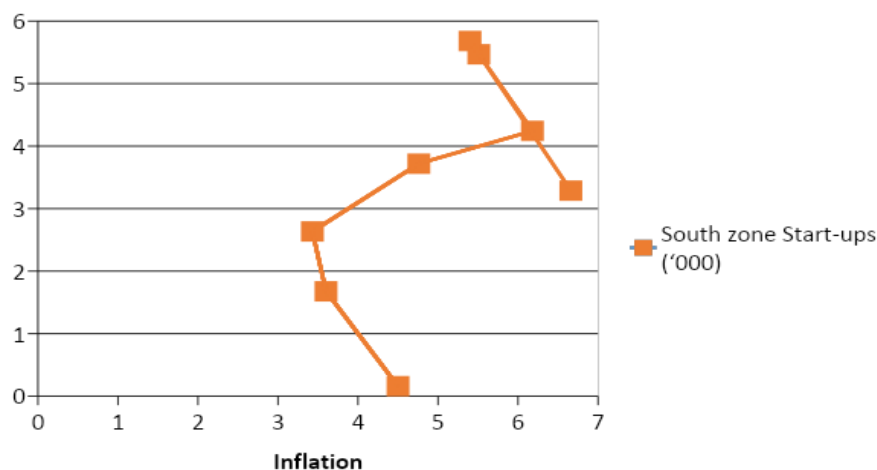


Figure 4: Inflation and Startup

## Conclusion

In the digital technology scenario, innovation and eco-system leads to develop new technology and develop new start-ups across India. In this respect, the start-up growth for the past ten years in India is consistently improved. Since, the researcher has undertaken the emerging topic of start-up which influences GDP and inflation especially in South zone selected states for the study. The analyses for correlation between GDP and number of start-ups in the South zone indicate that the number of start-ups in the South zone have a positive effect on the GDP, which means that GDP and South zone start-ups vary together. The schemes of policies of the Governments in South India for start-up companies in the states: Karnataka, Andhra Pradesh, Tamilnadu and Kerala have been favourable and have resulted in positive effects on the number of start-ups in the South zone. Positive trend in GDP has been effective in implementing these policies by way of funds for these policies. Also, these states have been successful in drawing good FDI inflows

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